

Argonne teams up with Motorola, Packard to commercialize, market advanced biochips

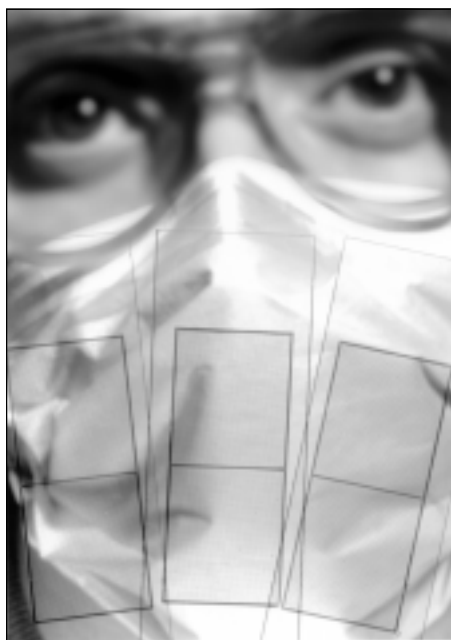
Rapid advances in medicine, health care and agriculture are expected from a joint research project announced today by Argonne, Motorola Inc. and Packard Instrument Company.

The project, which aims at commercializing and marketing advanced biochips and related analytical technologies, is expected to make the process of decoding genes, human or otherwise, a thousand times faster than with current technologies.

The project was announced at a June 29 telephone press conference hosted by Associate Laboratory Director Harvey Drucker. Also participating in the press conference were Energy Secretary Federico Peña and Aleksey Ostrovsky, science attaché, Embassy of the Russian Federation.

Motorola will develop manufacturing processes to mass-produce biochips, and Packard will develop and manufacture the analytical instruments to process and analyze the biochips. Argonne's contribution, in conjunction with its Moscow research partner, the Russian Academy of Science's Engelhardt Institute of Molecular Biology, is intellectual property in the form of 19 inventions related to biological microchips.

Motorola and Packard will contribute a total of \$19 million over five years to support the joint-research agreement, making it one of



CHIP OFF THE OLD DOC — These biochips pack the equivalent of thousands of micro-test tubes on a single glass slide. Motorola Inc. and Packard Instrument Co. have formed a joint research partnership with Argonne to commercialize and market biochip and related analytical technologies.

the largest biotechnology joint-research agreements ever signed by a U.S. Department of Energy laboratory. Argonne's 19 inventions, which have been licensed exclusively to Motorola and Packard, are the result of more than \$10 million in research support since 1994 by DOE, the Defense Advanced Research Projects Agency, the Rus-

sian Academy of Sciences and the Russian Human Genome Program.

"With a commercial biochip to rapidly and economically perform genetic analysis, within a few years we should see better pharmaceuticals developed more rapidly, faster and more accurate medical diagnostics, a heightened ability to assess and possibly repair environmental damage, and better, more hardy, and healthier crops," said Richard McKernan, president of Packard Instrument Company.

Like computer chips, which perform millions of mathematical operations a second, biochips can perform thousands of biological reactions, such as decoding genes, in a few seconds.

The Argonne-Engelhardt biochips employ a novel "micro-gel" technology in which as many as 10,000 micro-structures are mounted on a single glass surface about the size of a microscopic slide.

Each micro-gel is like a micro-test tube in which chemical compounds can be tested against biological targets to provide answers to questions about DNA sequence, genetic variation, gene expression, protein interaction and immune response.

In addition to being faster than conventional gene sequencing methods, these biochips provide a 3-dimensional platform that allows greater sensitivity and accuracy in

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New center to help guard infrastructure

Assuring the safety, reliability and continuity of critical national infrastructures such as telecommunications,



Scalingi

energy supply systems and transportation networks, is the focus of Argonne's new Infrastructure Assurance Center.

Argonne created the center in response to a directive issued last month by President Clinton calling for "a national effort to assure the security of the United States' increasingly vulnerable and interconnected infrastructures."

Critical infrastructures are those systems essential to the minimum operations of the economy and government. Advances in information technology have made many of these systems increasingly automated and interdependent. As a result, they are vulnerable to equipment failures, human error, natural disasters, and physical and cyber attacks.

A breakdown in any one system has the potential to significantly disrupt the economy and national security.

To help prevent such a breakdown, the Infrastructure Assurance (IA) Center will draw upon Argonne's resources in the basic and applied sciences, instrumentation, computer sciences, and technology assessment to identify areas that are vulnerable and to develop cost-effective methods, tools, systems and technologies to protect them.

"Argonne's expertise in the disciplines required for understanding infrastructure assurance makes the lab well-equipped to address this increasingly important na-

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Appeal raffle tickets on sale through July 10

Tickets for the Argonne Combined Appeal (ACA) annual raffle will be on sale daily from 11:15 a.m. to 1:15 p.m. in Argonne-East's Building 213 Cafeteria Monday through Friday, July 10.

Tickets are 25 cents each or five for \$1. Tickets will also be available from ACA steering committee members and ACA coordinators at the Argonne-East employee picnic on Saturday, July 11.



This year's grand prize is two round-trip United Airlines tickets to a continental U.S. destination.

Other prizes include four box seat tickets for the Chicago White Sox vs. the Cleveland Indians on Saturday, July 18; brunch at Wolf's Head Inn; brunch at Holiday Inn; a gift certificate from Sure Fire Auto Supply in Lemont, and various music CDs.

The drawing will be held at the

picnic. Winners do not need to be present.

Other events on the ACA calendar this year are the second annual used book sale on Sept. 10 and 11 and the kickoff clothing drive on Oct. 5 and 6. Collection of books for the used book sale will begin in August. Details will appear in future issues of *Argonne News*.

For more information on the combined appeal see the ACA home page at <http://www.anl.gov/ACA/aca-home.html>.

Inside this issue ■ HR offers July classes in many subjects
■ Computer Users to discuss Linux OS ■ Service Awards

Half-day class to provide insight on work styles

"Building The Work Relationship," a half-day course offered through Human Resources, will provide participants with a "profile" of their work styles as an aid to developing positive professional relationships at work.

Prior to class, each participants will have five of their co-workers complete behavioral style profiles

of him or her. The profile analysis identifies each participant as one of four different behavioral styles: "driver," "analytic," "amiable" or "expressive."

Participants learn how to adapt their styles to that of others to reduce interpersonal tension within work relationships, which allows for a more collaborative focus on the job.

The course (HR630) is scheduled for Tuesday, Aug. 4, from 1 p.m. to 5 p.m. in Argonne-East's Building 202, Room B169. Participants must register for the course no later than Friday, July 10, to allow for the completion of the behavioral style profiles.

Contact John Hyzer (HR) at ext. 2-3410 for more information.

First Friday Forum to focus on Women in CHM

Lin Xiang-Qun Chenc (CHM) will speak on "Women in the Chemistry Division" at the Friday, July 10 meeting of the First Friday Forum.

Visitors are invited to bring their lunches to the talk, which will begin

at noon in Argonne-East's Building 201, Room 190.

The First Friday Forum is an informal gathering of Argonne women usually held on the first Friday of each month. Anyone interested in

career and gender issues related to women is invited to attend.

For more information about the forum, see the World Wide Web page at <http://epics.aps.anl.gov/~banerjee/wist/fff.htm>

Classes cover diversity, presentations, CPS review

Human Resources will offer several classes at Argonne-East in July.

Complete class information is listed on the Human Resources World Wide Web page (<http://www.hr.anl.gov/>) under "Performance Development." Register through a Training Management System representative. For more information, call Betty Iwan (HR) at ext. 2-3410.

Classes include:

■ Diversity Awareness (HR139) will help employees understand what diversity is and how it compares to equal opportunity and affirmative action. The class will be held on Thursday, July 16, from 9 a.m. - 10 a.m. in Building 201, Room 274. The class is free.

■ CPS Review: Management

(HR261) consists of three major subject areas: behavior science, human resources management, and organizations and management. The class will be held July 22 - Aug. 21, from 11:30 a.m. to 1 p.m. in Building 201, Room 238. The cost is \$210.

■ Professional Excellence For Secretaries (HR231) will be a "Brown Bag Lunch Seminar" held from 11:30 a.m. - 1 p.m. in Building 201, Room 238 on Wednesday, July 15. This seminar describes how to become a professional secretary by explaining the important role a secretary plays in any organization. The cost is \$40.

■ Presentation Excellence (HR532) will provide techniques to help participants look, sound

and feel confident, organized and effective. The class will be held on Thursday and Friday, July 16-17, from 8:30 a.m. - 5 p.m. in Building 362, Room F108. The class is free.

■ Leadership and Motivation (HR641) provides an analysis of leadership and employee motivation. The course will be held on Thursday, July 9, from noon to 5 p.m. in Building 362, Room F108. The cost is \$25.

■ Space is still available in the Facilitating Effective Meetings (HR636), which covers a six-step meeting process and practice group facilitation techniques. The class will be held on Thursday, July 23, from 1 p.m. to 5 p.m. in Building 201, Room 274.



Saddle Soar

Argonne-West equestrian Angie Bumb (OD) competed in the Western Regional Olympic tryouts, and has earned the right to be an alternate. Angie and her horse Wish Me Luck placed fifth overall in a competitive field of 30 entrants.

Infrastructure Center formed

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tional issue," said Paula Scalingi, director of the center.

The IA Center will focus on several areas including:

■ Energy systems, transportation networks and water supply systems

■ Information assurance

■ Nuclear, biological and chemical (NBC) detection and consequence management

■ Emergency preparedness

■ Decontamination and remediation

■ Modeling and simulation

■ Risk assessment and management

■ Information management

■ Legal and regulatory analysis

The center will build on the lab's partnerships with infrastructure owners and operators, academic institutions, industry, government and not-for-profit research organizations. "These partnerships are critical to the success of infrastructure assurance efforts," said Scalingi.

President Clinton called for a reliable, interconnected, and secure information system infrastructure by the year 2003, and significantly increased security to government systems by the year 2000.

"Achieving this goal will depend heavily on research institutions such as Argonne, which have the multi-disciplinary expertise necessary to understand the interdependence among infrastructures, and the potential far-reaching effects of disruptions," said Scalingi.

Service Awards

Service Awards for June include:

40 Years

Ralph W. Ditch (TD-DD), Lawrence A. Neimark (ET).

35 Years

William P. McDowell (ASD), David Otto Pushis (ET), Ronald A. Scharping (ER), Raymond D. Wolson (CMT).

30 Years

Everet A. Clifton (OD), Dennis J. Kilsdonk (RE), Beverly N. Maske (ASD), Mike J. Monczynski (ECT-CTT), Stanley T. Ockers (MSD), Richard W. Patete (PFS-DR), Florence P. Smith (CMT-AC), Joyce A. Stephens (ET).

25 Years

David W. Green (CMT-AC), Verna

M. Stainback (RE), Kenneth L. Uherka (ET), Marvin L. Wesely (ER).

20 Years

Dorothy M. Cardia (OCF-BSS), Raymond L. Carlson (ECT-CTT), Timothy M. Carothers (OCF-PIM), Lee F. Essenmacher (ET), Judith L. Fisher (ET), Emil M. Franklin (OD), Vivian Kay Johnson (PFS-PMO), Francis B. Leiker (PFS-US), Virginia A. Peters (ECT-COM), Diane E. Redman (IPD-MED), V. Christos Stamoudis (ESH), Terrence G. Surles (EST-PA), Doris A. Wilson (OCF-ACT), Gary P. Zinkann (PHY).

15 Years

Eugene W. Brown (RPS-SEC), James P. Byrnes (ESH-HP), George

J. Joch (IPD-MED), Ronald J. Korczak (PFS-MAT), Edward R. Porlier (OCF-PRO), Elizabeth H. Rizzo (PHY).

10 Years

Betty Duncan-Clay (PFS-CU), Sandie Lee Goodson (OD-PS), Kathleen A. Jarzynka (MSD), Shela J. Johnson (PFS-FPE), James J. Laidler (CMT), Marc A. Madore (DIS), Nicholas J. Malik (PFS-FPE), Robert D. Olson (MCS), Mohan Ramanathan (XFD).

5 Years

Diane F. Hawk (EMO), Gerald McMichael (PNS), Jerry J. Rice (ECT-CS), Gerold Rosenbaum (CMB), John Wammack (XFD), Jerry Weverka (OD-PS).

Packard, Motorola to help develop biochips

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assaying proteins, RNA and DNA.

"Instead of reading DNA one letter or word at a time, they read whole phrases and sentences at a time," said Biologist Andrei Mirzabekov (CMB), whose research at Argonne and Engelhardt developed the biochips. "It's like speed-reading the genetic code with one hundred percent comprehension.

"By combining biochips with robots and computers," Mirzabekov said, "we can find one genetic variation among three billion DNA bases in a matter of minutes. Conventional methods take days." A DNA base is one of the four biological molecules that link together to form DNA's well-known "double-helix" molecule.

"Over the next four or five years, we plan to develop and refine the technology to mass-produce biochips," said Rudyard L. Istvan, Motorola vice president and corporate director of strategy. "This should reduce their cost and make them widely available to genetic researchers in many fields."

This biotechnology will have myriad applications in life science,

including:

- Medical diagnostics — Researchers will be able to identify in minutes mutated genes that could lead to later medical problems, such as cancer, multiple sclerosis or Alzheimer's. Widespread use of biochips will also remove the guesswork from early treatment of many diseases and conditions.

- Faster drug discovery and improved medical treatment — Bioassays that determine whether a drug causes genetic mutations or has other hazardous effects can be completed in days, rather than weeks or months. The use of biochips is also expected to speed up the regulatory drug approval process.

- Faster progress in life-sciences research — For example, the regulation of gene expression, which takes months to study with conventional sequencing techniques, can be accomplished in a single, parallel experiment with this biochip technology.

- Faster and more effective environmental restoration — Biochips can be used as highly sensitive detectors of microbial or organic pollution. Biochips may also help

identify genes that enable some natural enzymes to detoxify chemicals and digest pollutants.

- Improved agricultural products — Biochips can quickly and accurately detect agricultural disease and mutation, and speed tests of the safety of new agricultural products.

"Another example, and one that has received a lot of attention here in the United States, is responding to biological agents — whether on the battlefield or in a city where we might see these," Peña said. "This technology will allow us to more quickly detect the agent, and of course provide the response."

Motorola is one of the world's leading providers of wireless communications, semiconductors and advanced electronic systems, components and services.

Packard Instrument Company is a subsidiary of Packard BioScience Company, a privately held company based in Meriden, Conn. Packard develops, manufactures and distributes innovative, high-quality analytical instrumentation, liquid-handling robots, and reagents.

and beverages for purchase.

Volunteers wanted

The Argonne Club is seeking employees or their family members to help out at part of all of the picnic. All volunteers will receive a T-shirt. For more information, call Sara Hahn (XFD) at ext. 2-5736 or send e-mail to hahn@aps.anl.gov.

Users Group to discuss Linux OS

The Linux computer operating system will take center stage at the next meeting of the Argonne Computer Users Group, on Tuesday, July 7, at 3 p.m. in Building 221, Room A216.

The agenda includes discussions of RedHat Linux Version 5.1, Linux at DND-CAT, RedHat Linux Configuration Checklist and RedHat Linux availability in the Electronics and Computing Technologies Division.

ANL-West plans picnic on July 18

The 47th annual Argonne-West employee picnic will be held at Heise Hot Springs July 18 from 10 a.m. to 2 p.m.

Lunch will be served from 11 a.m. to 1 p.m. and includes roast beef, roast pork and Horvath dogs, baked potatoes, baked beans, corn on the cob, green salad and a dinner roll. There will be skewered hot dogs for the children. Argonne-West managers will serve ice cream sundaes.

Robbie Flores (RPS) will provide music and other entertainment. For the children, there will be pony rides, an inflatable castle, sack races, three-legged races, fishing, piñatas and a circus tent. For the adults there will be golf (tee times will be from 9 a.m. to 11 a.m.), volleyball and horse-shoe tournaments.

Volunteers are needed to help at the picnic. Contact Jeff Shelton (ED), picnic chairman, at ext. 3-7877.

'Mardi Gras' comes to Argonne Park on July 11

Argonne-East's 51st annual employee picnic will be held Saturday, July 11, from 10 a.m. to 3 p.m. in Argonne Park.

Argonne, DOE and University of Chicago employees are invited. Admission is free.

This year's picnic has a "Mardi Gras" theme and will feature a bungee run, Ferris wheel, big slide,

"Red Baron" plane ride, moonwalk, pony ride and a petting zoo.

There will be a golf-chipping contest, a pie walk and a coloring contest for children. Other attractions will include carnival-style games, hay rides, bingo and "Nite Life," pop-rock band playing a variety of music.

Marriott Corp. will provide food

Seminars

Send seminar listings to Evie Fagan, Building 201, Room 2U-09 (OPA-201). Deadline is 5 p.m. Monday. Seminar listings *only* can be sent by e-mail to efagan@anl.gov. Note new e-mail address.

Thursday, July 16

Experimental Facilities Division Seminar: "**Non-Interferometric Phase Measurement**" by Keith Nugent, School of Physics, The University of Melbourne, Australia. 4 p.m. Bldg. 401, Conference Room A1100.

Tuesday, July 21

Energy Technology Division Seminar: "**Overview of Plasma Source Ion Implantation**" by John R. Conrad, Department of Engineering Physics, University of Wisconsin, Madison. 10:30 a.m., Bldg. 212, Conference Room A157.

Monday, July 27

Materials Science Division Seminar: "**Proximity Effects and Interface Transparency in Superconductor/Ferromagnet Multilayers**" by Marjo Geers, Kamerlingh Onnes Laboratory, Leiden University, The Netherlands. 11 a.m., Bldg. 223, Conference Room S105.

Monday, August 10

High Energy Physics Division Theoretical Physics Seminar: "**Mass and Decay of the Lowest Glueball in QCD**" by Tao Huang, Institute of High Energy Physics, Beijing, P.R. China. 2 p.m., Bldg. 362, Conference Room E188.



Argonne News is published weekly for Argonne employees by the Office of Public Affairs. Send news items to Editor Dave Jacqu , Building 201, Room 2Q-02 (OPA-201). Voice: ext. 2-5582. Fax: ext. 2-5274. E-mail: info@anl.gov. Argonne-West correspondent: Dolores Lagerquist, Bldg. 752, ext. 3-7523. Deadline for all materials is 5 p.m. Monday. Argonne National Laboratory is operated by the University of Chicago for the U.S. Department of Energy. Vol. 51, No. 26.

Classified Ads

MISCELLANEOUS

TYPEWRITER — JUKI Electronic Office, Sierra 4500, w/several elements, excellent condition. \$125. Sandra Slade, (708) 448-0145.

MISCELLANEOUS — 3 class, 2 trailer hitches. \$5/each. 2, 205/75, 15” tires, mounted on GM rims. \$50/each. Zenith console stereo. \$50. Bernie Lepacek, (815) 436-6717.

CAR TRAILER — Single axle, tilt bed, approx. 13' x 77" bed, electric “superwinch,” new battery, spare wheel and tire. \$580. Jim Fuerstenberg, (847) 394-3952.

WATER BED — Queen size, frame, liner, 4 drawers, heater & mattress. Best offer. Beth Johnke, (815) 722-0411.

MISCELLANEOUS — Fossil fish, 4 boxes of assorted fish. \$39, \$56 & \$70. Lester Shirkey, (815) 886-2809.

FURNITURE — 4-piece sectional, includes 1 curve section, 2 recliners for ends & 1 full size fold out bed, cream background w/multi colors. Ideal for basement rec. room. \$200. Barbara Burke, (815) 458-2399.

GAMES — Sega Genesis & 8 games, fine condition, son has outgrown. \$50. Jill Morgenthaler, (847) 824-4845.

WASHER — Whirlpool, regular capacity, 2-speed, 4-cycle. \$125. Yvette Collazo, (630) 910-6721.

GOLF CLUBS — 15 Northwestern clubs, 4 woods, 11 irons, bag, balls & cart. \$125. Mike Janik, (708) 636-5305 - after 6 p.m.

SNOWMOBILE — 2 place, trailer needs tire. \$40 o.b.o. Judy Walden, (815) 436-8437.

MOVING SALE — Sun room rattan sofa, love seat, matching tables. \$125. Round walnut dining room table & 4 chairs. \$100. Large steel executive desk. \$50. 19" color TV. \$25. Teak stand. \$10. Washer & dryer. \$100. Gordon Knapp, (630) 527-0757.

TIRES — 4, BF Goodrich, all terrain tires, 35 x 12.5 x 16.5 on aluminum 8-bolt rims, excellent condition. \$500. Dawn Ferrazzi, (630) 243-1974.

BEANIE BABIES — Set of McDonald’s ’97 Teenie Beanies. \$200. 2 sets of Beanies (Stretch, Pounce, France, Smoochy, Bruno, Rainbow, Iggy, Spunky, Hissy and Puffin. \$100/set. Jan ’98 & May ’98 retired. Many current. Gloria King, (708) 349-3764.

MISCELLANEOUS — 2, swivel rockers, beige. \$80. Zenith stereo console, AM/FM, turntable w/CD cassette capability, excellent speakers, great condition. \$100. 2-speed humidifier. \$15. Laurie Scheiblein, (815) 838-2706.

FURNITURE — Dinette table w/4 chairs, wood grain, formica top, good condition. \$150 o.b.o. James Kotori Jr, (708) 352-7435.

SOFA — 2-piece sectional sofa, seats 5, 3 years old, very good condition, picture available. \$170 o.b.o. Alessandra Klimara, (815) 744-0269.

MISCELLANEOUS — Hoover “Spirit 900” vacuum & attachment. \$50. Over-the-door neck traction set, in unopened box. \$5. Many estate items. Paul Kurpis, (630) 971-1322.

Classified ad request forms are available in stockrooms, at the Office of Public Affairs in Building 201, and at Argonne-West’s Building 752, Room D109. The old half-sheet forms are acceptable, but note that the deadline is incorrect. Deadline for classified ads is **5 p.m. Monday**.

Please note: All classified ads appear on Argonne’s World Wide Web site and can be seen by the public.

Requests can be submitted by fax to ext. 2-5274, or by inter-office mail to Evie Fagan, Building 201, Room 2U-09 (OPA-201). A drop-off box is located at the *Argonne News* office, Building 201, room 2Q-02 and at 2U-09.

Request forms must be signed and must include a home phone number. Ads cannot be accepted by phone or electronic mail. Please limit ads to 25 words; longer ads may be edited. Housing listed for sale or rent is available without regard to race, creed, color or national origin.

Argonne-West employees are welcome to submit classified ads to *Argonne News*. Request forms are available at the office of Argonne-West Correspondent Dolores Lagerquist, Building 752, Room D109. When completed, fax the request form to the *Argonne News* office at (630) 252-5274.

BROILER — Weber charcoal, 22.5" diameter, yellow color, stored indoors, good condition. Don Schmitt, (708) 246-4696. New \$160 - asking \$50 o.b.o.

MISCELLANEOUS — Color TV, 13", 1 year old. \$70. AM/FM cassette radio. \$20. Wighard Jaeger, (630) 910-1890.

CAR RACK — Yakima car rack system, fits 2-door coupes, Q towers, cross bars w/end caps, Q stretch kit, Q clips, faring, ski mounts, gunwhale brackets, security locks. \$270. Sherry Farrell, (815) 942-3948.

TICKETS — Chicago White Sox tickets, Sunday, July 19, ’98, 1:05 p.m., Cleveland Indians, lower deck reserved. \$17/ticket. Gary Gunderson, (630) 257-7471.

GOLF CLUBS — Arnold Palmer Golden Standard Signature, model golf clubs, 1, 3, 4 & 5 woods, steel shafts, never used, in box, given from Arnold Palmer. \$225. Patricia Engwall, (630) 257-6886 - after 10 a.m.

GARAGE SALE — Multi-family, July 10, 8:30 a.m. - 4 p.m., July 11, 8:30 a.m. - noon, bedroom set, clothing, tools, much miscellaneous. Marcia Konopa, (815) 436-1218.

MEN’S SWEATERS — Size medium, 1 cardigan, 5 crew pullovers, some new w/original tags, others, like new. \$25 takes all. Sandy Gotlund, (630) 257-5558.

AUTOMOBILES

1995 NISSAN — Altima GXE, AT, loaded, excellent condition, 57K miles. \$8,500 o.b.o. Tim Hickey, (815) 723-2251.

1986 HONDA — Prelude, 2-door, sunroof, very clean, needs some work. Best offer. Hanan Amro, (630) 769-0658.

1994 CHEVROLET — S-10 pickup, 4.3 Vortec engine, 5-speed, new tires, 47K miles, excellent condition. \$6,800. Patricia Frankovich, (815) 436-7696.

1987 NISSAN — Sentra, hatchback, white, 5-speed, good condition except needs carburetor rebuilt, 110K mile. \$700 o.b.o. Gary Henriksen, (630) 322-9013.

1987 CHEVROLET — Sprint, high miles, clean, reliable, basic transportation. \$650 o.b.o. Judy Walden, (815) 436-8437.

1994 BUICK — Century, special wagon, 3.1L V6, AT, aluminum wheels, AM/FM stereo tape, PM, rear window defroster, cruise control, luggage rack, PS. PW, third seat, much more, 12.8K miles. Mike Janik, (708) 636-5305 - after 6 p.m.

1987 HONDA — Accord, AT, AC, PW, good condition, new transmission, 138K miles. Best offer. Yaspal Badyal, (630) 493-1475.

1983 CHEVROLET — Celebrity, 87K miles, runs well, average condition. \$1,500 o.b.o. Jill Jonkouski, (773) 586-1664.

1983 MAXIMA — 4-door, fully loaded, everything works, runs well, 150K miles, very little rust. Spent most of its life in CA. \$1,100. Jim Hooper, (630) 983-8989.

1987 FORD — E150 Conversion van (Lorian), excellent condition, 99K miles, new tires, brakes & exhaust system. \$3,900. Jim Hooper, (630) 983-8989.

1993 CHEVROLET — S-10 Blazer, 4 x 4, Tahoe package, V6, 4-door, 4 wheel drive ,AT, PS, PB, PM, PW, PDL, AC, cruise control, tilt steering, AM/FM stereo cassette, velour/cloth seats, new tires, brakes & battery. \$11,500. Mark Jilek, (815) 436-0152.

1992 GEO — Convertible, blue, 36K miles. \$2,850. June Townsend, (630) 964-2782.

1978 DODGE — Aspen, 2-door, AC, low mileage. \$1,500 o.b.o. June Townsend, (630) 964-2782.

1983 NISSAN — 280 ZX, good condition. \$2,200. Anthony Dutoi, (815) 740-3782.

1988 TOYOTA — Tercel, AT, PS, AM/FM cassette, AC, 116K miles, 2-door, good condition. \$1,500 o.b.o. Ahmet Alatas (312) 842-9271 or Alatahm@charlie.iit.edu.

1991 MAZDA — MX6 DX, MT, PS, PB, cruise control, AC, AM/FM stereo cassette, good condition. \$2,000. Wighard Jaeger, (630) 910-1890.

1986 OLDSMOBILE — Cutlass Brougham, AT, burgundy, 4-door, recent tune-up, new brakes, runs excellent, 150K miles. \$800. Mary Hammond, (815) 722-0264.

1991 TOYOTA — Camry LE, 4-door, power everything, AC, grey exterior/interior, 68.8K miles, original owner, needs new radio, runs well. \$7,500 o.b.o. Kevin Atto, (630) 416-7871.

HOUSING

LOT/SALE — Lake of the Ozarks. \$17,500. Todd Trotter, (630) 261-9750.

TIMESHARE/SALE — Austria. \$6,500 & exchangeable. Todd Trotter, (630) 261-9750.

HOUSE/RENT — Ranch, 3 bedrooms, 1 bath, 1-car garage, fireplace, new 6-panel pine bedroom doors w/more upgrades throughout, Wheaton schools, swimming pool, Jacuzzi, pool table & more, easy access to I-88 & shopping. \$1,175/month + first months rent & security deposit. Thomas Meier, (630) 393-3688.

CONDO/RENT — Downers Grove, Lake-in-the Woods, 4 miles from lab., top floor unit, 2 bedrooms, 1.5 baths, 30' balcony, underground parking. James Feigl, (630) 415-0832 - leave message.

HOUSE/RENT — 3 bedrooms, 1.75 baths, utility room, CA, 2-car attached garage, large fenced yard, Shorewood. \$950/month & security. Bonnie Simmons, (815) 467-5953.

LOT/SALE — 44' x 130' lot, 706 Mack St., Joliet, Cathedral area, mature trees. \$22,500. Kimberly Herman Perona, (815) 723-8509.

HOUSE/SALE — 708 Mack Street, Joliet, cathedral area, brick bungalow, 2 bedrooms, 1 remodeled bath, full finished basement, additional bedroom/ den, enclosed porch, large family room, hardwood floors, CA, freshly painted. \$115,000. Kimberly Herman Perona, (815) 723-8509.

HOUSE/SALE — Lockport, 3 bedroom ranch, 1.5 baths, LR, FR, large kitchen w/ many cabinets, breakfast bar, CAC, 2.75 car garage, quiet subdivision, low taxes, well maintained, exterior is steel siding w/ cedar front. \$125,000. Laurie Scheiblein, (815) 838-2706.

VACATION LOT/SALE — Walden-on-Lake Conroe, Montgomery, TX, about 40 miles NW of Houston, enjoy tennis, golf, boating, water sports, ideal for retirement or vacation hide away. \$3,500. Carlos Melendres, (630) 257-5059.

APARTMENT/SHARE — Westwood Spring, Woodridge, 5 miles from Argonne, clean, July -August. \$300/month. Omer Ahmed Zaki, (630) 910-4968.

ROOM/RENT — Furnished sleeping room available in private home, includes kitchen & laundry privileges. \$100/week. Jan Buckley, (708) 301-6169.

TOWNHOUSE/SALE — Palos Hills, 2.5 baths, family room w/bar, hardwood floors, balcony, patio, 2nd kitchen downstairs, pool & tennis courts, move-in condition. \$149,900. Corrie Patterson, (708) 974-9924.

WANTED

RENT/CABIN — To rent for a long weekend, a cabin by a lake for family and Labrador. Jill Morgenthaler, (847) 824-4845.

CHILD CARE — Chinese/English speaking family needs help w/2-year old girl, some light housework, prefer come & go but will consider live-in. Please call for interview. Yiyang Ge, (630) 985-5749.

TEENIE BEANIE BABIES — Looking for no’s. 1, 2, 3, 4 & 8. Will purchase or trade for #6 (Happy), #11 (Waddle) or #12 (Peanut). Jill Jonkouski, (773) 586-1664.

RIDE — Summer student, (MCS) needs ride for Friday Jumma prayers. Omer Ahmed Zaki, (630) 910-4968.